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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

JUL 28 1995¹

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)

)
Amendment of Parts 2 and 15 of the)
Commission's Rules to Permit Use)
of Radio Frequencies Above 40 GHz)
For New Radio Applications)

ET Docket No. 94-124
RM-8308

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To: The Commission

**COMMENTS OF THE AMERICAN RADIO RELAY LEAGUE, INCORPORATED
IN RESPONSE TO REQUEST FOR SUPPLEMENTAL COMMENTS**

The American Radio Relay League, Incorporated (the League), the national non-profit association of amateur radio operators in the United States, by counsel and in response to the Public Notice, DA 95-1415, released June 23, 1994, hereby respectfully submits its supplemental comments. The Public Notice requests comment on the desirability and feasibility of harmonizing the FCC's proposal in this Docket proceeding¹ concerning commercial development and use of the bands above 40 GHz with the "European Table of Frequency Allocations and Utilisations" for the band 3400 MHz to 105 GHz (the ERC Table), which was developed by the European Radiocommunications Committee (ERC) of the European Conference of Postal and Telecommunications Administrations (CEPT). The League, having previously participated in the instant proceeding by the filing of comments and reply comments, and having reviewed the ERC Table, now offers the following comments on the possibility of international harmonization of the allocations above 40 GHz.

¹ See the Notice of Proposed Rule Making, FCC 94-273, 9 FCC Rcd. 7078, released November 8, 1994.

1. At the outset, it is noted that the instant docket proceeding addresses only the frequency bands above 40 GHz. The ERC Table, however, is far broader, in that it addresses allocations between 3,400 MHz and 105 GHz. The third paragraph of the Public Notice states, in part, as follows:

Supplemental comments are requested on the desirability and feasibility of harmonizing the FCC's proposal in ET docket No. 94-124 and the European frequency allocation table. In particular, information is requested on whether the specific frequency band proposals contained in either ET Docket No. 94-124 or the European frequency allocation table can or should be changed in order to facilitate worldwide marketing and use of radio transmitting equipment...

The difficulty presented by this is that it is not clear whether the Commission, by the Public Notice, intends to broaden the scope of this proceeding significantly by consideration of international harmonization of the bands between 3.4 GHz and 40 GHz as well as with respect to the bands above 40 GHz. While any consideration of the allocations below 40 GHz would be very much beyond the scope of the Docket 94-124 proceeding, and would necessitate a separate proceeding (since radically different issues are raised with respect to frequency bands between 3.4 GHz and 40 GHz), nonetheless a literal reading of the Public Notice would indicate that the intent of the Commission is to address the proposals contained in either the ERC Table or Docket 94-124.

2. The League is not prepared at this stage to address, nor does it believe that the Commission's intent in the Public Notice is to consider, allocations below 40 GHz. If this assumption is incorrect, the League requests that the Commission issue a Further

Notice in this proceeding, to focus specifically on allocations between 3.4 GHz and 40 GHz.² It is not possible at this time to address the many issues affecting the Amateur and Amateur-Satellite Services inherent in the international harmonization of the bands below 40 GHz, and it is suggested that it would be improper to do so in the context of the current docket proceeding. These supplemental comments, therefore, will address only the possible harmonization of the bands above 40 GHz.

3. The League generally supports the concept of international harmonization of millimeter-wave bands, since equipment that is useful worldwide for these allocations will generally be more available for amateurs, and allow worldwide amateur communications in allocations similar throughout the world. The League has promoted an International Amateur Radio Permit that would allow "international roaming" by amateurs from different countries without regulatory barriers. The philosophy of international harmonization of allocations is consistent with this effort, and would facilitate amateur operations throughout the world. Harmonization of microwave bands and millimeter-wave bands allows and fosters the sharing of scientific findings of radio amateur

² To illustrate the vastness of the issues raised by possible international harmonization of the bands between 3.4 GHz and 40 GHz, the following amateur interests would be potentially affected:

3400-3500 MHz; 5650-5725 MHz; 5725-5850 MHz; 5850-5925 MHz; 10-10.5 GHz; 24-24.05 GHz; and 24.05-24.25 GHz.

The League is not prepared at this time to address these issues, and would need additional time to study each proposition in detail.

experimenters regarding propagation studies, circuitry and antenna designs. It also encourages the development of new satellite technologies by international cooperation between groups of amateurs in different countries. The Commission's effort is well-taken as it would affect the Amateur Service, and it is entirely consistent with one principal purpose of the Amateur Service, which is to foster international goodwill.

4. As to the specific amateur bands above 40 GHz involved in the ERC Table, and the harmonization of the table with the proposals in the Notice in this proceeding, it is to be understood that the latter is essentially benign as regards the amateur allocations above 40 GHz, other than with respect to the 76-77 GHz band, about which the League has already commented in this proceeding.³ The ERC Table, however, raises some additional issues.

5. The band 47-47.2 GHz is allocated exclusively to the Amateur Service, and would remain so, consistent with the United States and Region 2 Table of Allocations. At 47.2-48.5 GHz, there is no current amateur allocation. The ERC Table shows a secondary amateur allocation, but also would include ENG/OB operation, apparently broadcast electronic news gathering on a coordinated basis. It is unclear what coordination would be required, but the League strongly supports the addition in the United States of a similar allocation. The concept of broadcast ENG shared with Amateur operation generally is difficult, because of the mobile,

³ See the Comments of the American Radio Relay League, Incorporated, filed January 30, 1995, and its Reply Comments, filed March 1, 1995.

itinerant operation of each service. It is not impossible in the United States, due to the established, voluntary coordination procedures in each service for broadcast auxiliary and amateur operation, and due to the frequency re-use possible in these bands, but avoiding sharing of two itinerant mobile services in the same band is generally to be preferred. For this reason, the League suggests that a secondary allocation for the Amateur Service at 47.2-48.5 GHz be created in the United States, consistent with the ERC Table.⁴

6. There are no harmonization issues raised with respect to the amateur 75.5-76 GHz or 76-78 GHz bands, and the League recommends no change. At 78-81 GHz, however, the ERC Table adds Earth-Exploration Satellite (active) [EES (active)] at 79-81 GHz on a secondary basis. If the United States were to adopt that allocation plan, the Amateur Service would have an additional service with which to share. While this, alone, would not necessarily be incompatible with amateur operation in the band, the Docket 94-124 table includes a number of services, including Government and non-Government radiolocation primary, and government Space Research (space-to-earth), Amateur and Amateur Satellite operation, each on a secondary basis. The Docket 94-124 table also includes Radio Frequency Devices (Part 15) in the band. Current

⁴ The allocations above 40 GHz that were adopted at WARC-79 generally followed a pattern of providing a relatively narrow, exclusively amateur and amateur-satellite, allocation adjacent to a wider, shared allocation. The 47.0-47.2 GHz allocation was the only significant departure from this useful pattern, a departure that the ERC Table would correct.

footnote RR912 permits radars on space stations in the EES and the space research service at 78-79 GHz.

7. In summary, the possible impact on the Amateur and Amateur-Satellite Services from harmonization of the U.S. Docket 94-124 and the ERC Table for the bands above 40 GHz would be the creation of a secondary amateur allocation in the band 47.2-48.5 GHz which is desirable and should be accomplished, but without undesirable sharing by broadcast ENG operation; and the addition of EES (active) at 79-81 GHz. Overall, the harmonization of the two tables would be beneficial to the Amateur Service to the extent that a secondary allocation to the Amateur Service at 47.2-48.5 GHz would be a desirable enhancement to the 47-47.2 GHz primary amateur allocation.

Therefore, the foregoing considered, the American Radio Relay League, Incorporated respectfully requests that, should the Commission decide to harmonize its proposals in this proceeding with the European Common Allocation Table, it should not address bands below 40 GHz in this proceeding, and that the harmonization be done with respect to the bands above 40 GHz so as to create an

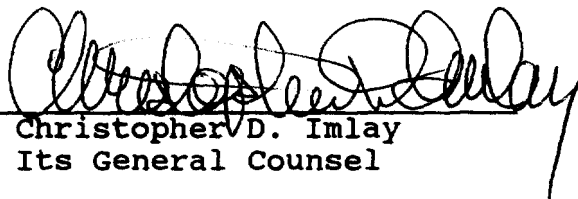
Amateur and Amateur-Satellite Service secondary allocation at 47.2-48.5 GHz, without incompatible sharing arrangements with other services.

Respectfully submitted,

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